

CLAIMS

What is claimed is:

- 5 1. A method of inhibiting angiogenesis in a patient comprising,
a) administering to said patient a therapeutically effective amount of an
endorepellin protein, its fragments or derivatives, or analogs thereof,
wherein said endorepellin protein has an amino acid sequence of
domain V of perlecan; and
10 b) inhibiting generation of blood vessels into a tissue or organ.
2. A method of inhibiting angiogenesis in a tumor of a patient, comprising
a) administering to said patient a therapeutically effective amount of an
endorepellin protein, its fragments or derivatives, or analogs thereof,
15 wherein said endorepellin protein has an amino acid sequence of
domain V of perlecan; and
b) inhibiting generation of blood vessels into said tumor.
3. A method of monitoring an angiogenesis-mediated disease or condition in
20 a patient comprising measuring an amount of said endorepellin protein, its
fragments or derivatives, or analogs thereof, in a sample from said patient
in which an increase in said amount of said endorepellin protein, its
fragments or derivatives, or analogs thereof, relative to that present in a
sample derived from said patient at an earlier time indicates disease
25 progression.
4. The method of claim 3 wherein said monitoring comprises contacting said
patient sample with an anti-endorepellin antibody and measuring an
amount of immunospecific binding of endorepellin protein, its fragments or
30 derivatives, or analogs thereof, to said antibody.
5. A method of monitoring an angiogenesis-mediated disease or condition in
a patient comprising measuring an amount of said endorepellin protein, its

fragments or derivatives, or analogs thereof, in a sample from said patient in which a decrease in said amount of said endorepellin protein, its fragments or derivatives, or analogs thereof, relative to that present in a sample derived from said patient at an earlier time indicates disease regression.

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6. The method of claim 5 wherein said monitoring comprises contacting said patient sample with an anti-endorepellin antibody and measuring an amount of immunospecific binding of endorepellin protein, its fragments or derivatives, or analogs thereof, to said antibody.

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7. A method of treating a tumor in a patient, comprising

- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) inhibiting angiogenesis in said tumor; and
- c) inducing regression of said tumor.

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8. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising

- a) administering to said patient a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) inhibiting angiogenesis in said patient; and
- c) inducing regression of said angiogenesis-mediated disease or condition.

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9. A method of treating a patient with an angiogenesis-mediated disease or condition, comprising

- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- b) discontinuing said conventional therapeutic regimen;

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- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said patient; and
- 5 e) inducing regression of said angiogenesis-mediated disease or condition.

10. The method of ~~claim 9~~ wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

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11. A method of treating a tumor in a patient, comprising

- a) administering to said patient a conventional therapeutic regimen and a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- 15 b) discontinuing said conventional therapeutic regimen;
- c) continuing administration to said patient of a therapeutically effective amount of an endorepellin protein, its fragments or derivatives, or analogs thereof;
- d) inhibiting angiogenesis in said tumor in said patient;
- 20 e) extending dormancy of metastases and inhibition of tumor growth; and
- f) inducing regression of said tumor.

12. The method of ~~claim 11~~ wherein said conventional therapeutic regimen is at least one of radiation, chemotherapy or surgery.

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13. A diagnostic kit for the detection or measurement of endorepellin protein, its fragments or derivatives, or analogs thereof, in a sample from a patient, comprising in at least one container an antibody that specifically reacts with a said endorepellin protein, its fragments or derivatives, or analogs thereof in said patient sample.

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14. The diagnostic kit of claim 11 wherein said antibody is detectably labeled with at least one of a radiolabelled molecule, a fluorescent molecule, a chemiluminesor, an enzyme substrate or cofactor, or magnetic particles.

5 15. A pharmaceutical composition, comprising an endorepellin protein, its fragments or derivatives, or analogs thereof, and a pharmaceutically acceptable carrier or excipient.

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